Weak thermal quenching of the luminescence in the Ca$_3$Sc$_2$Si$_3$O$_{12}$:Ce$^{3+}$ garnet phosphor (Supporting information)

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1 Supporting figures

![Graphical representation of temperature dependence](image)

**Fig. S1** Variable temperature luminescence decay curves for (a) SYG:Ce$^{3+}$, (b) CSSO:Ce$^{3+}$, and (c) YAG:Ce$^{3+}$.

![Graphical representation of Raman spectrum](image)

**Fig. S2** Room temperature Raman spectrum of SYG, measured using a Renishaw InVia Reflex spectrometer equipped with a CCD and a 2400 l/mm grating, as a 532 nm laser source was focused on the sample through a $\times$50 objective lens (NA = 0.5, power $\approx$ 2 mW on the sample), for 10 s of acquisition time over 16 accumulations.$^{S1}$

References

S1 Y.-C. Lin, P. Erhart, M. Bettinelli, M. Karlsson, To be published.